



Wildland Fire Management

Reality

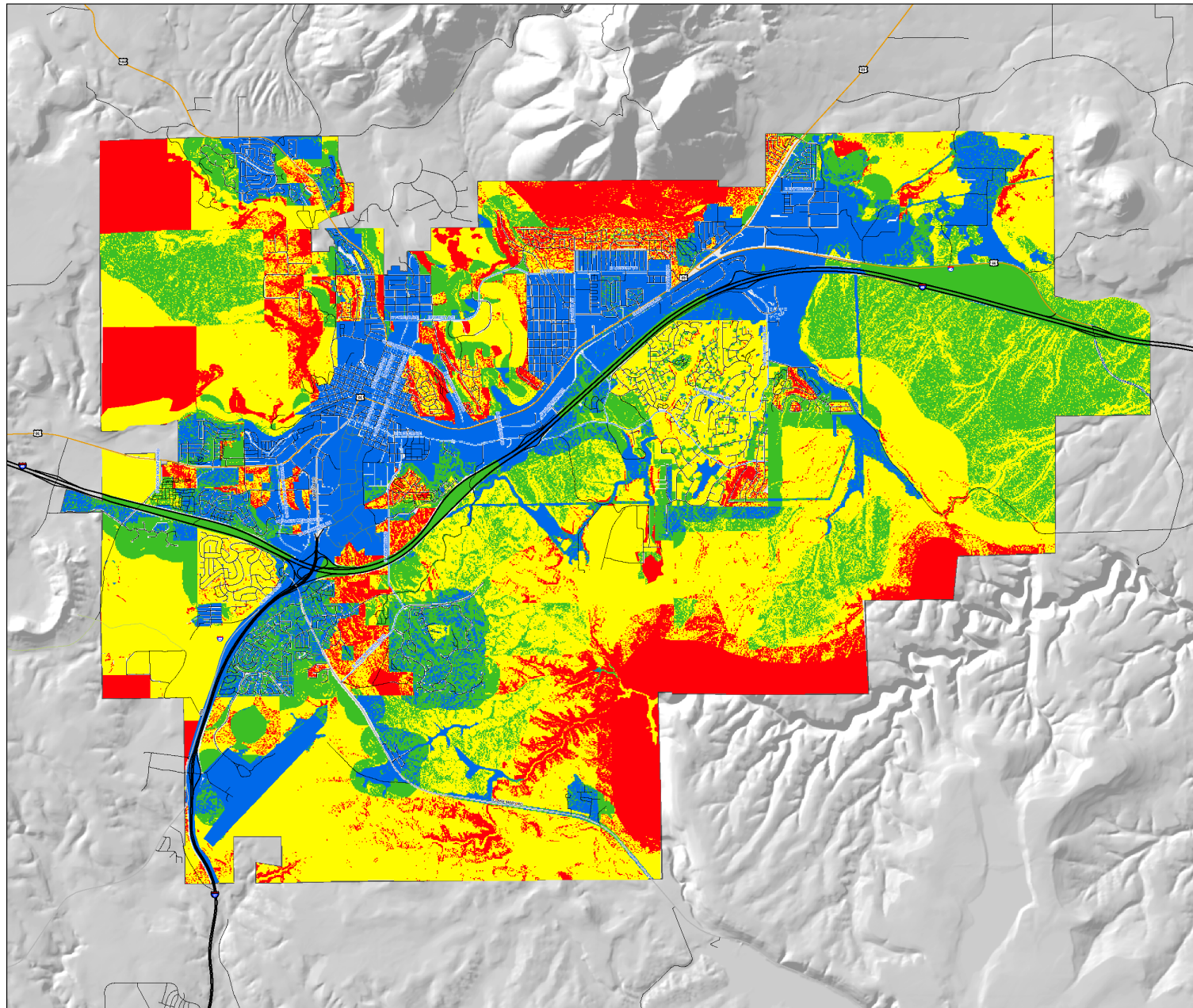
**CATASTROPHIC
WILDFIRE**

**OUR #1 FIRE
THREAT**

Ranked #1 At-Risk Community in AZ



CITY OF FLAGSTAFF WILDFIRE THREAT ANALYSIS



Level of Threat

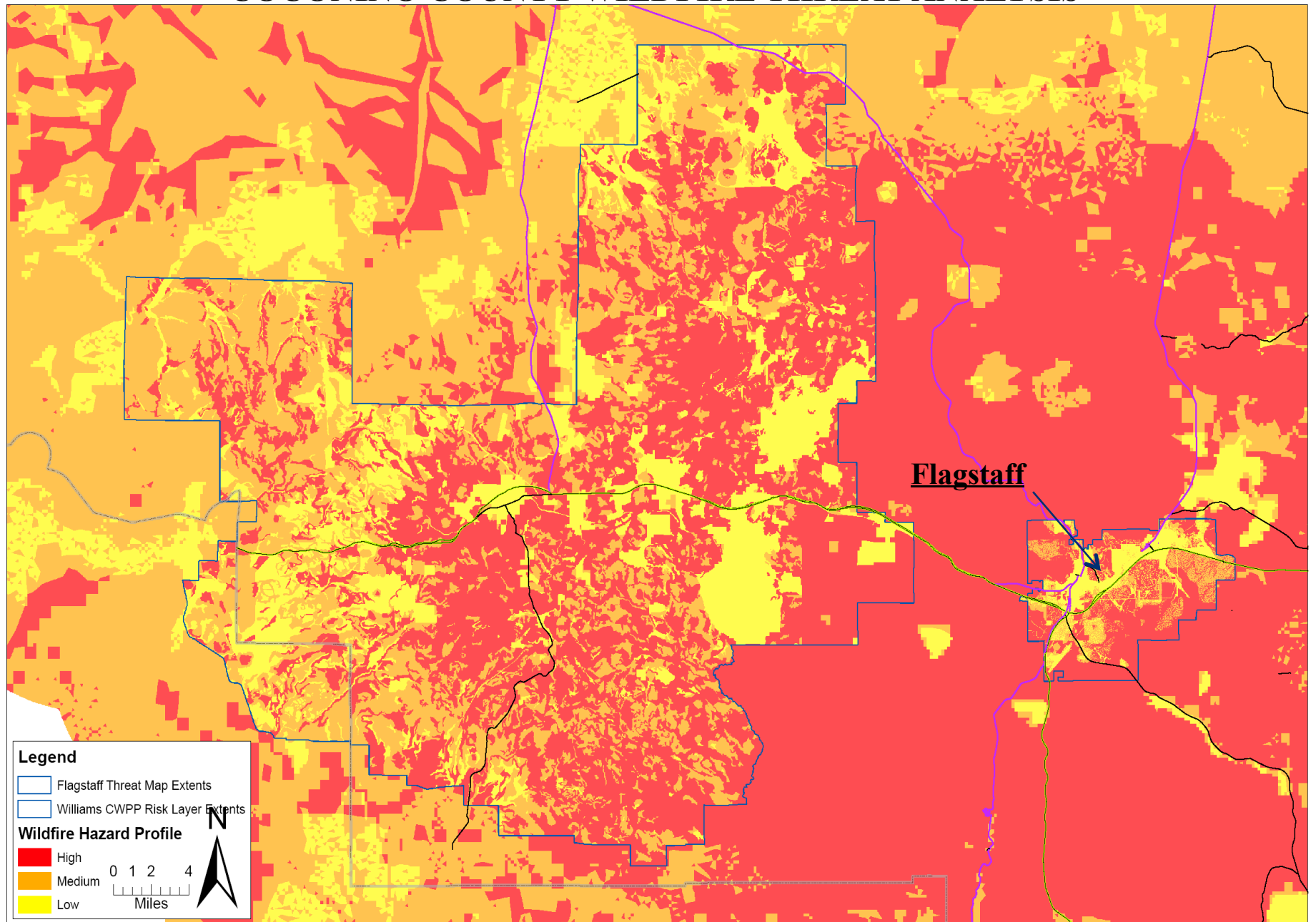
- EXTREME
- HIGH
- MODERATE
- LOW

Developed using the Weighted Overlay tool in ArcGIS 9.1. Layers were developed and clipped to the Flagstaff City limits. Layers of influence include: accessibility, hydrant coverage, ponderosa pine locations, encumbrance, slope, fuel treatments, roof type, and structure risk. This map is for planning purposes only, no warranty of accuracy is implied or given.



Arizona Central Stateplane Feet
North American Datum 1983
Compiled By: City of Flagstaff GIS
May 2009

COCONINO COUNTY WILDFIRE THREAT ANALYSIS



Wildland Fire...

...not a question of “if”,
but “when”, “where”
and “what kind”





Forests once looked like this.



But now look like this.



Fires once burned like this



Now burn like this

OVERVIEW

- 1996 Fire Season
- Initial Efforts (Fall 96)
- Staffing (Fall 97 - Present)

Full time staff

Seasonal Fuel Crews

Student Interns

Volunteers

- Greater Flagstaff Forests
Partnership (Fall 97 – Present)
- Community Wildfire Protection
Plan (Fall 05)
- National Firewise Leadership
Award (Spring 2007)
- Wildland Urban Interface Code
(Feb 2008)
- Statistically-valid Community
Evaluations
- Four Forest Restoration
Initiative (2009 – Present)

**CORE
TECHNOLOGY**

OVERVIEW #2

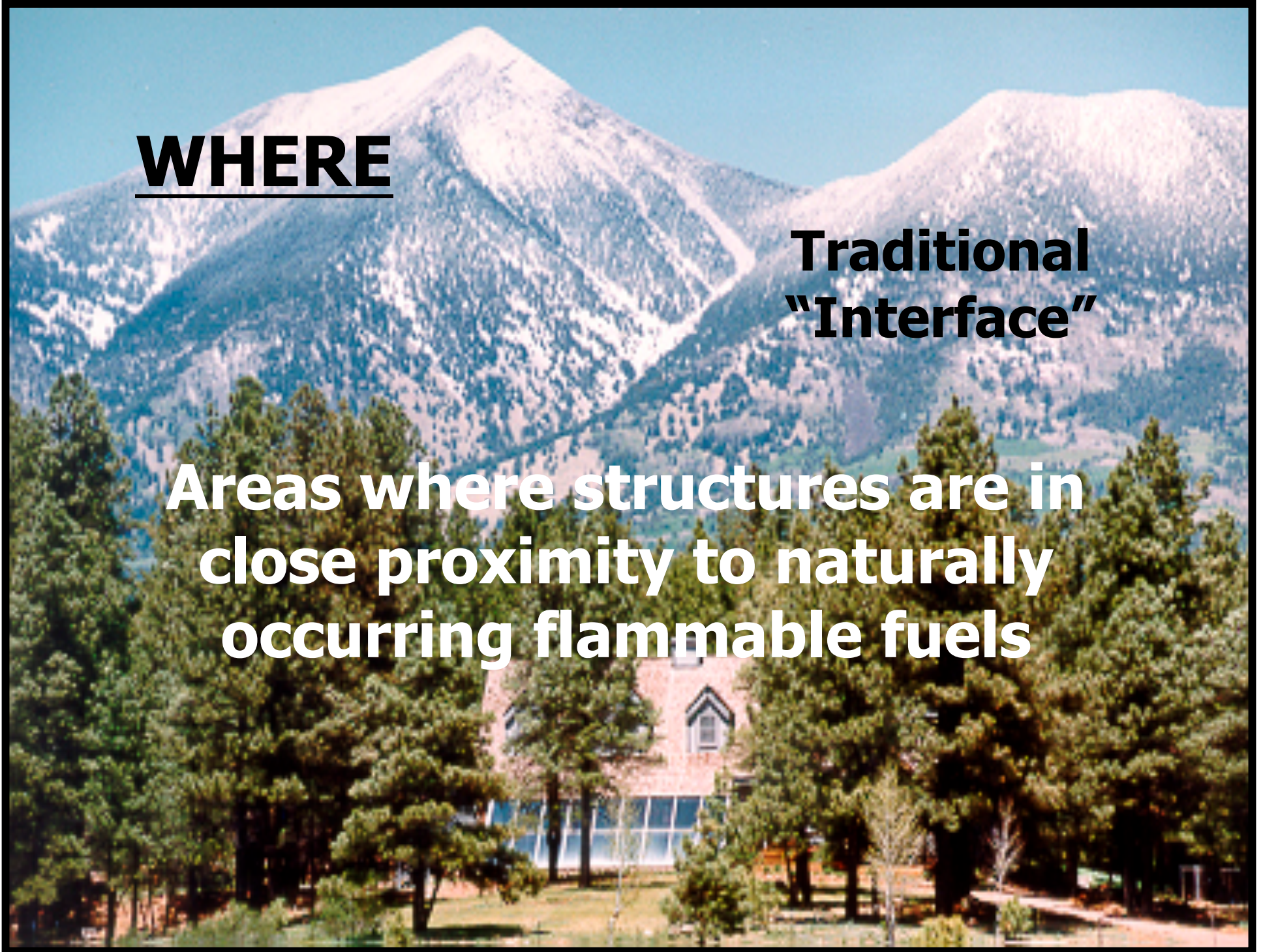
- **Addresses goals of City Council:**
 - Environmental Protection*
 - Sustainability*
 - Economic Development*
 - Quality of Life*
- **Innovative pro-active approach to a real problem**
- **Unique among municipal government**

STRATEGIC IN-NATURE

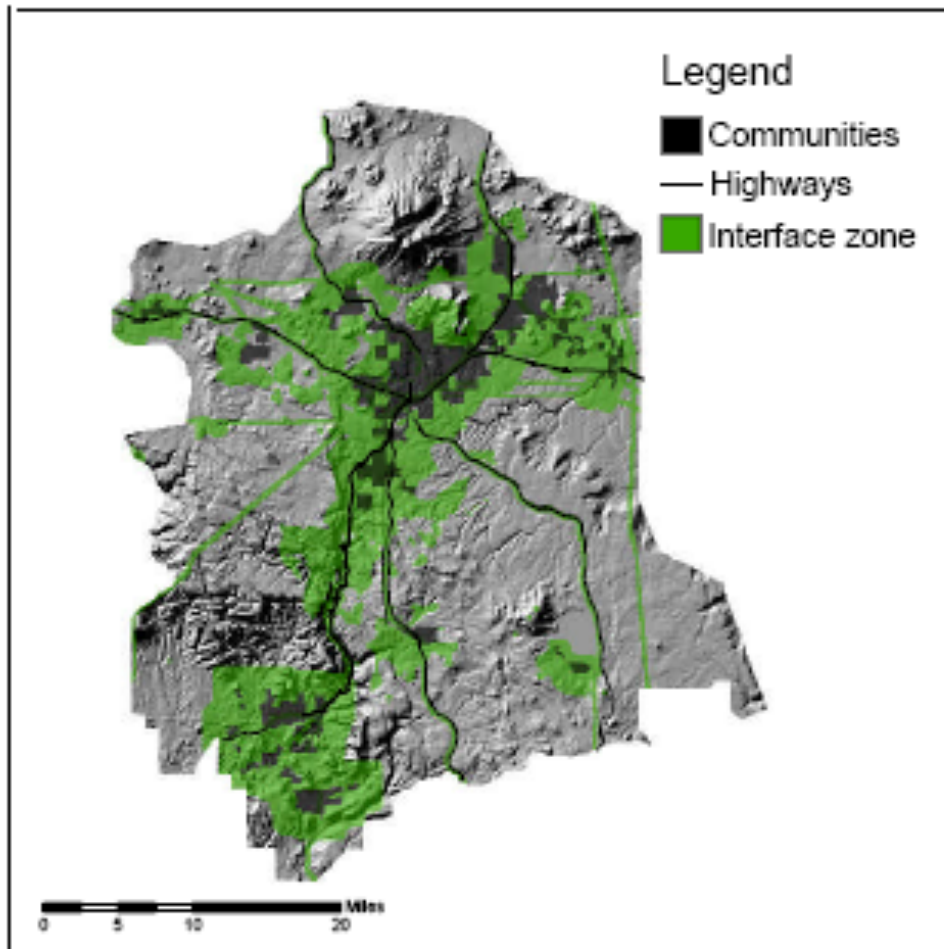
WHERE

**Traditional
“Interface”**

**Areas where structures are in
close proximity to naturally
occurring flammable fuels**



WHERE



CWPP FOR FLAGSTAFF & SURROUNDING COMMUNITIES

WILDLAND/URBAN INTERFACE ZONE

Our View

- CWPP -

Ownership/Jurisdiction – Wildland/Urban Interface zone

Ownership/Jurisdiction	Acres	% of Total
Federal:		
Flagstaff Monuments	146	.1%
Coconino National Forest	215,166	76.7%
Kalbar National Forest	8,633	3.1%
State:		
Land Department	15,665	5.6%
Camp Navajo (Division of Military & Emergency Affairs)	8,963	3.0%
Private/Other (Includes local government)	32,082	11.5%
TOTAL	280,655	100%

Lessons:

Any time

“Big” size

Every fuel type

Fast spread

NEVER *Enough resources*



Impacts

FIRE

Immediate

POST FIRE

Secondary

HARDY FIRE

Un-thinned Stand



Thinned Stand



SCHULTZ FIRE

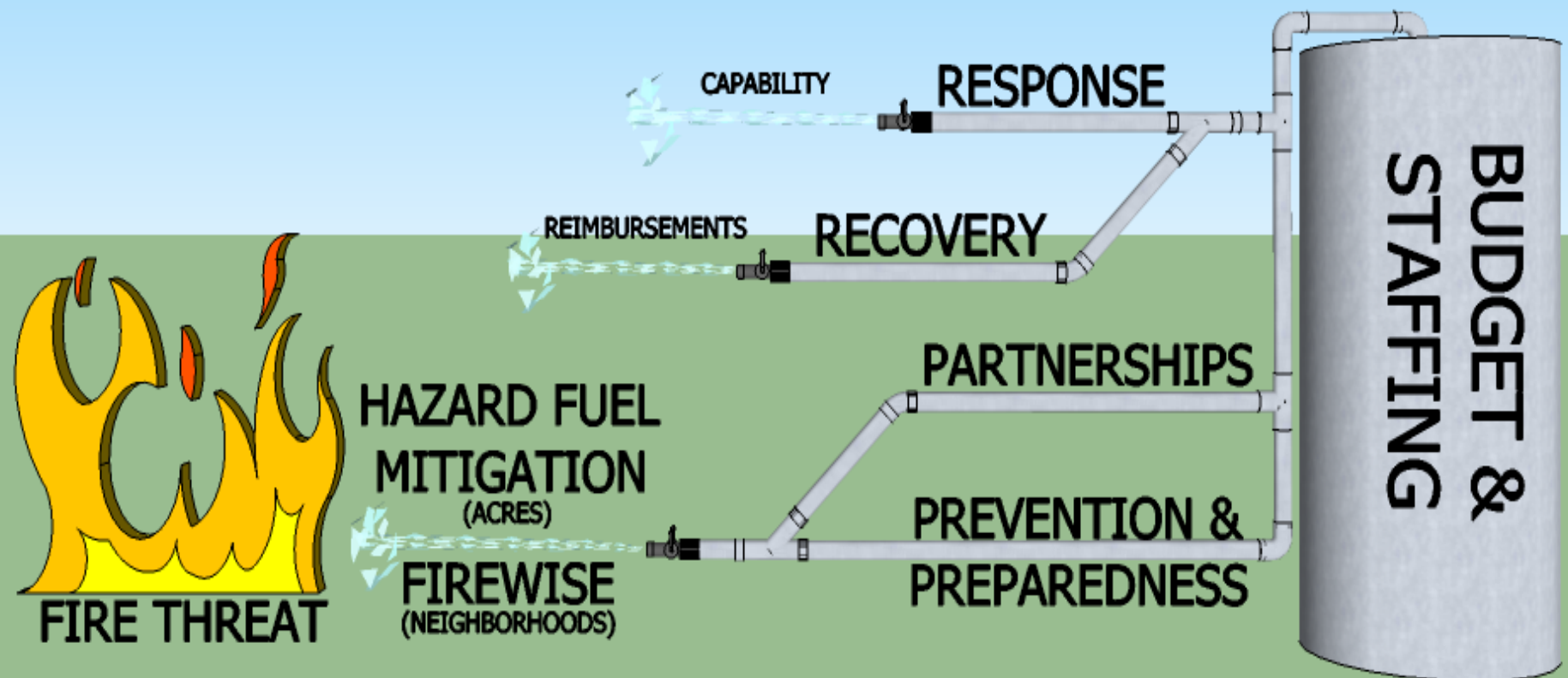
Type Fire



Disastrous Post-Fire Erosion and Flooding



WILDLAND FIRE MGMT SYSTEM



Who

FFD Wildland Fire Staff

Private Citizens & Vendors

**P
A
R
T
N
E
R
S**

**City – Community Development
Public Works
Police Dept**

**Community: School District
Service Clubs
Businesses
Homeowner Associations**

**County: Rural Environment Corps
Fire Districts
Emergency Response Teams**

Who #2

**P
A
R
T
N
E
R
S**

State of AZ: Transportation

Corrections

State Forestry

Emergency/Military Affairs

NAU – School of Forestry

Ecological Restoration

Institute

Game & fish Department

Federal: Coconino National Forest

Grand Canyon National Park

Flagstaff Area Monuments

U.S. Naval Observatory

U.S. Fish & Wildlife Service

Who #3

Other Partners

Greater Flagstaff Forests Partnership

Ponderosa Fire Advisory Council

Governor's Forest Health Council

NAU Centennial Forest

State-Wide FireWise Committee

AZ Dept of Environmental Quality

Four Forest Restoration Initiative

A National Leader & Model:

Prevention

Preparedness

Hazard Mitigation

Response

Recovery



SIGNIFICANT ACCOMPLISHMENTS



PLANNING

In meetings, and in the field;

**Often a desire to avoid these,
and simply “get after it”,
but the struggle is necessary
and worth it!**



Greater Flagstaff Forests Partnership and Ponderosa Fire Advisory Council



Community Wildfire Protection Plan

HAZARD FUEL REDUCTION:



FREE FIREWOOD: Allows residents to see first-hand what is happening in the forest and personally benefit from the work.



CITY WELL FIELD: Demonstrated a “clumpy-groupy” approach, above that permitted by Forest Plan and above “comfort level” of some other agencies



FLAGSTAFF PULLIAM AIRPORT: Demonstrated impacts of restoration treatment on wildlife habitat (tassel eared squirrels)

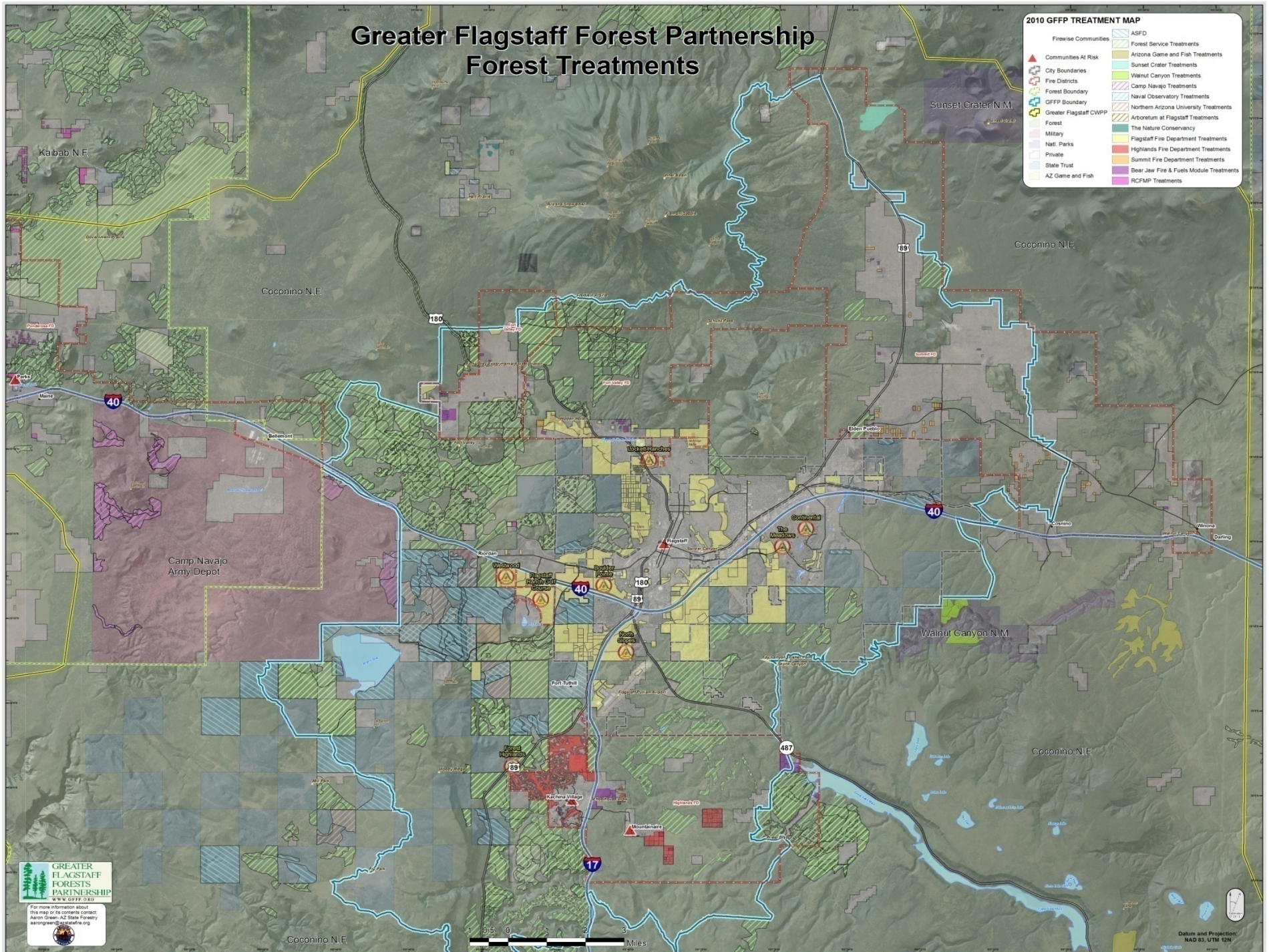


STUMPS & SMOKE (& BIOMASS)



Greater Flagstaff Forest Partnership Forest Treatments

- 2010 GFFP TREATMENT MAP**
- Firewise Communities
 - Communities At Risk
 - City Boundaries
 - Fire Districts
 - Forest Boundary
 - GFFP Boundary
 - Greater Flagstaff CVPP
 - Forest
 - Military
 - Nat'l Parks
 - Private
 - State Trust
 - AZ Game and Fish
 - ASFD
 - Forest Service Treatments
 - Arizona Game and Fish Treatments
 - Sunset Crater Treatments
 - Walnut Canyon Treatments
 - Camp Navajo Treatments
 - Naval Observatory Treatments
 - Northern Arizona University Treatments
 - Arboretum at Flagstaff Treatments
 - The Nature Conservancy
 - Flagstaff Fire Department Treatments
 - Highlands Fire Department Treatments
 - Summit Fire Department Treatments
 - Bear Jaw Fire & Fuels Module Treatments
 - RCFMP Treatments





DECK TESTING:



Composite deck materials are becoming increasingly common – some work well, others do not.



WORKFORCE DEVELOPMENT



VOLUNTEERS



TRAINING



OUTREACH

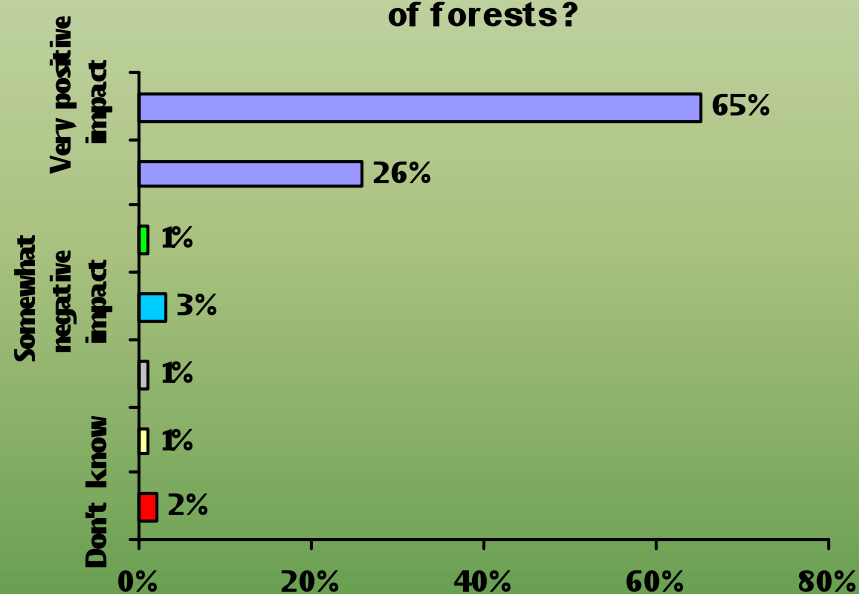


COMMUNITY PERCEPTIONS

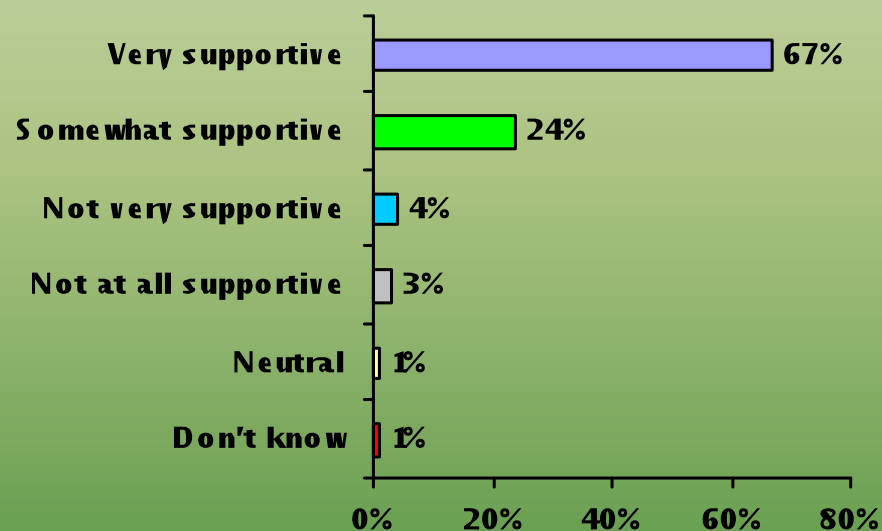
NAU – Social Research Lab: Surveys of Residents of the Flagstaff area

2006 – 606 individuals

Do forest management projects have a positive or negative impact on the health of forests?



Do you support agencies conducting prescribed burns in the Flagstaff area?



CHALLENGES:

- **Maintaining Interest**
- **Meeting Demand**
- **Tree Size & Volume**
- **Smoke Management**
- **Funding**

THE 4 E's:

- *Education*
- *Engineering*
- *Enforcement*
- *Ecosystem*



A photograph of a healthy forest with tall, straight trees and a dense canopy. The trees are mostly deciduous with green foliage. The ground is covered in a layer of brown leaves and some green undergrowth. The sky is visible through the canopy, showing a clear blue color.

Our Goal – A Healthy Forest



. . . and, a FireWise Community



www.flagstaff.az.gov/wildlandfire

